



EE325 Introductory Econometrics Semester 2/2017

Instruction

1. You are freely allowed to discuss the problems with your colleagues, but you must complete and submit the finished problem set **individually**. Due date: Tuesday 20 March 2018 (before the lecture begins)
2. If you have any questions, please send me an e-mail at pwrasai@gmail.com

Name _____ Surname _____ Student No. _____

X	Y	$\sum X$	$\sum Y$	\bar{X}	\bar{Y}	$\sum X^2$	$\sum Y^2$	$\sum XY$	$\sum XY^2$	$\sum (X_i - \bar{X})^2$	$\sum (Y_i - \bar{Y})^2$
X	Y										
1	15										
2	18										
3	12										
4	15										
5	11										
6	10										
7	9										
8	7										
9	3										
10	4										
11	2										
12	2										
13	6										
14	3										
15	1										

1. Please fill in the table
2. According to this table, please calculate the estimators of these variables

$$\beta_1, \beta_2, \sigma_{\beta_1}^2, \sigma_{\beta_2}^2, \sigma_{\beta_1}, \sigma_{\beta_2}, \sigma_{\beta_1\beta_2}$$

3. Please draw the regression line (\hat{Y}) together with the dot of each observations.
4. Is there any significant evidence of heteroskedasticity ?
5. Explain the reasoning of OLS method to estimate β_1 , β_2 In other words, what is the logic behind the OLS Method
6. Why can't OLS use $\sum \hat{u}$ as the objective function to minimize the error terms?
7. Considering this stituation "Mr. Somchai wants to analyse the effect of income on consumption spending. He found that as income increase the variation of consumption spending also increase." Is there any violation on the OLS assumption? Please explain